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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicant(s): Malackowski et al.

Serial No.: 09/764,609

Filed: January 17, 2001

For: SURGERY SYSTEM

Group Art Unit: 3739

Examiner: John P. Leubecker

Docket No.: 29997/035A

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November 18, 2005

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REPLY BRIEF

Mail Stop Appeal Brief-Patent
Commissioner for Patents
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Sir:

Presented herewith for consideration by the Board of Patent Appeals and Interferences is the appellants' Reply to the Examiner's Answer filed on September 20, 2005.

Status of Claims

Claims 1, 3-23, 25-29, 31-34, 80-100, 102, and 105-106 are pending in this application and have all been finally rejected.

Status of Amendments to Claims

Amendments to the claims filed in the response dated April 26, 2005 have been entered for purposes of this appeal. An amendment to the abstract filed in the same response has also been entered for the purpose of this appeal.

Grounds of Rejection

All claims have been finally rejected under 35 U.S.C. §103(a) as unpatentable over U. S. Patent No. 5,617,857, Chader et al., hereafter “Chader.”

All claims have been finally rejected under 35 U.S.C. §103(a) as unpatentable over Chader combined with U. S. Patent No. 6,453,190, Acker et al., hereafter “Acker.”

Argument

Grouping of Claims

Claims 1 and 29, along with their dependent claims, stand and fall together. Claim 23 and the claims dependent thereon should be separately considered, and do not stand and fall with either claim 1 or 29.

In Claim 23, the limitations “Activation” and “Release” with Respect to “Buttons” Have Been Improperly Ignored, Which Renders Claim 23 and the Claims Dependent Thereon Non-Obvious Over Chader et al.

In rejecting claim 23, the claims limitations “activation” and “release” have been improperly ignored. Specifically, the examiner’s answer states that the words “activation” and “release” with respect to buttons “do nothing more than give them names (i.e., first button and second button would have been just as appropriate and meaningful) and imply no meaningful structure....” By thus ignoring the limitations “activation” and “release,” the examiner has apparently concluded that Chader et al. discloses this portion of the claimed invention simply because Chader et al. discloses a plurality of buttons. This reasoning, however, is faulty because it impermissively ignores the limitations “activation” and “release” that are present in the claim. It is well established that every word in a claim has meaning and thus cannot be ignored. In this instance, the term “activation button” is explicitly used and described in the specification as being a button connected to the smart instrument that may be used to cause the computer system to selectively obtain information from the smart instrument only when the activation button is activated. (See, e.g. ¶0104.) As further explained in the specification, this is beneficial because the computer system may therefore selectively ignore other smart instruments that are within the communication range or operating field but for which the activation buttons are not activated. (See, e.g. ¶0105.) This provides the substantial benefit of reducing the amount of unnecessary data that must be communicated between the smart instrument and the computer system and thereby directly facilitates the use of a wireless bi-directional communication system between the smart instrument and the computer system. As argued by applicant throughout the prosecution of this application, the wireless communication between the smart instrument and the computer system was not obvious at the time of the invention due at least in part to the fact that it was not thought a wireless communication system would be adequate to transfer the large volume of data

necessary for real time navigation. Thus the inclusion of the "activation button" in the smart instrument recited in claim 23 directly helps overcome this technological limitation previously known in the art.

The "activation button" recited in claim 23 is not disclosed in Chader et al., nor is it suggested in Chader et al. due to the substantially different method of communication between the smart instrument and the control computer system therein. Specifically, the smart instrument and computer system disclosed in Chader et al. communicate only after being connected by a hard wire connection. Once the hard wire connection is established, direct communication between the two components occurs continuously. There is no suggestion of or motivation for using an activation button on the smart instrument in Chader et al. because there is simply no suggestion of a need for deactivating the data communication once the hard wire communication connection is established. The disregard of the claim limitation "activation button" is therefore both impermissible and ignores important structure recited in the claim that is not found or suggested by the prior art. Therefore, claim 23 and the claims dependent thereon are not rendered obvious by Chader et al.

The Lack Of Any Suggestion of a Wireless Data Communication Link Between the Smart Instrument and the Computer System in Chader et al. is Evidence that Such Wireless Data Communication Was Not Considered an Obvious Alternative to the Hard Wired Data Communication System Disclosed Therein.

In trying to rationalize the obviousness rejection of claims 1 and 29 without actually having identified in the prior art the suggestion of a motivation to make the proffered combination, it is argued in the examiner's Answer that there is an analogous situation that clarifies the examiner's position to which, "Appellant would have to agree." (Page 11, lines 1-12.) The appellants, however, respectfully decline to agree with such analogy because the two situations are completely different. The examiner analogizes that the use of memory other than that specifically disclosed by Chader et al. (i.e., EPROM, PROM, or PAL chip) would be obvious based on the disclosure of Chader et al. and that such situation is analogous to the issue at hand, which relates to the use of wireless data communication rather than hard wired data communication between the smart instrument and computer system. This example, however, is not analogous because, with regard to memory types, Chader et al. first generic describes "storage

means” comprising an “electronic memory chip” and then lists some specific types of electronic memory chips. (See column 2, lines 62-67.) However, with regard to the data communication link, Chader et al. does not generically describe a data communication system that encompasses both hard-wired and wireless data communication means between the smart instrument and the computer system. Rather, at all times, Chader et al. describes the use of only a hard wired data connection, nor does Chader et al. suggest anything other than the use of a hard wire connection in order to transfer data bi-directionally between the smart instrument and the computer system. What the examiner’s analogy actually shows is that where Chader et al. wished to describe a broader technology, such as electronic memory, broad terminology was used and then a list of various specific examples was provided thereafter. This is in stark contrast with Chader et al.’s consistent description of only a hard-wired data communication path that must be physically connected between the smart instrument and the computer system. Therefore, the examiner’s own analogy actually supports the conclusion that it was not considered obvious at the time of invention of the presently claimed subject matter that wireless bi-directional data transfer between the smart instrument and the computer system was an expedient or obvious alternative to the hard wired data link disclosed in Chader et al. Although, looking back in hindsight it may be easy to conclude that it would have been obvious to try the claimed combination of the smart instrument with a wireless bi-directional data communication system, there is no suggestion in the cited art that such a combination would have been considered an acceptable or expedient alternative to the disclosed hard-wired data communication link.

Evidence Relating to the Solution of a Long Felt Need, Which Was Submitted In The Rule 132 Declarations of Drs. Kassam and Klarsfeld, Has Not Been Properly Considered or Rebutted.

In a Rule 132 declaration by Dr. Amin Kassam, M.D. signed April 7, 2004, and filed with a response on April 12, 2004, Dr. Kassam declares several facts within his knowledge as an expert in neurological surgery that point to the recognition of a long felt need for a wireless surgical navigation system as recited in the present claims before the invention thereof. Specifically in paragraphs 6b and c, Dr. Kassam states that “[i]n neurosurgery there are a large number of instruments and devices in the surgical field that require power cords, suction tubes and the like,” and “[a] wired hand piece has a wire that drags, can catch on other instruments and wires, and will actually pull against the direction I need to move the hand piece.” Dr. Kassam

then describes how the wireless device of the claimed invention solves those issues because it is much less cumbersome and provides a significantly greater range of motion in performing the surgical tasks properly, in less time, and with lower fatigue. Further, the Rule 132 declaration of Dr. Jay Klarsfeld states that the wireless, hardwired issue is so important that a number of companies have abandoned hardwired active optical systems in favor of passive wireless systems, and have not developed wireless active tracking devices as claimed in the present application. Contrary to the assertions set forth in the examiner's answer on page 15, the evidence proffered by Drs. Kassam and Klarsfeld is not mostly opinion or merely an approval of a system that uses wireless hand pieces. Rather, these Rule 132 Affidavits provide direct evidence that the device claimed in this application meets a long felt and previously unmet need in the industry. This evidence has never been rebutted and is central to significant portions of the applicants' positions that, prior to the invention recited in the claims, it was not thought possible to adequately transfer the amount of data necessary for real time navigation between a smart instrument and the computer system by a wireless connection. Therefore, applicants respectfully urge that the evidence presented in Dr. Kassam's and Dr. Klarsfeld's Rule 132 affidavits has not been successfully rebutted, and that such evidence sufficiently rebuts any *prima facie* case of obviousness.

Conclusion

The examiner has failed to adequately consider limitations recited in the claims, has not sufficiently presented a *prima facie* case of obviousness, and has not sufficiently considered or rebutted evidence submitted in support of non-obviousness. Therefore, the final rejection of all of claims at issue should be reversed by the board and this application passed to issue, notice of which is respectfully requested.

Respectfully submitted,

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